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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/085,704	02/28/2002	Masahide Yamaki	15337	1516

7590 12/11/2003
Scully, Scott, Murphy & Presser
400 Garden City Plaza
Garden City, NY 11530

EXAMINER

LEUBECKER, JOHN P

ART UNIT	PAPER NUMBER
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3739

DATE MAILED: 12/11/2003

8

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/085,704

Applicant(s)

YAMAKI ET AL.

Examiner

John P. Leubecker

Art Unit

3739

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 June 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- 1) ☐ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

Election/Restrictions

1. The requirement for an election of species made in paper number 6 is hereby withdrawn. Although Applicant contended that the species shown in Figures 5-8 were not distinct, this Examiner takes the position that all claims read on Species A anyway. A review of the claims reveals that only one species (Species A) is claimed in claims 1-19 (even though Applicant assigned claims 1-10 to Species A). Therefore, all claims will be examined.

Drawings

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the support member and yoke of the micromirrors as described in claims 7 and 17 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

3. The proposed drawing corrections were received on June 3, 2002. These drawings are approved.

Specification

4. The disclosure is objected to because of the following informalities: first paragraph of the disclosure concerning the claim of benefit to a Japanese Patent Applicant should be deleted since

such claim is improper and additionally not supported by Applicant's declaration (in which priority is not claimed).

Appropriate correction is required.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

6. Claims 1-19 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The Object and Summary of the Invention (the claim language on pages 4-6) describe a device in which the reflection mirror is "controlled" by the mirror control circuit. The specification describes something different: a DMD device is controlled by the mirror control circuit and the reflection mirror merely constantly reflects any light impinging thereupon. It appears that the description in the Object and Summary of the Invention is incorrect, according to the remaining disclosure and drawings.

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 1-19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As to claims 1 and 11 (and any other claims that recite substantially similar or related limitations), the recitation of the mirror control circuit "altering the direction of the illuminating light reflected by the *reflection mirror*" (emphasis added) is indefinite specifically since the specification fails to support such structure. The specification defines the control circuitry as controlling a DMD (Digital Micromirror Device)(23), which is a matrix of a plurality of micromirrors, and not as controlling the reflection mirror (24). It appears that claim 1 leaves out a critical element of the invention (DMD) and improperly defines the function of the mirror control circuit.

As to claims 7 and 17, terms "diagonal line" and "horizontal direction" are indefinite since the reference direction from which these are defined can not be ascertained.

Dependent claims where present inherit those defects.

Claim Rejections - 35 USC § 102 and 103

9. Because of the severity of the indefiniteness of at least claims 1 and 11, the Examiner will not apply prior art references that will be irrelevant when Applicant corrects the indefiniteness of the independent claims. For instance, as presently claimed, Ozawa et al. (U.S. Pat. 6,635,001) anticipate the elements of claim 1: a light source lamp (26), a reflection mirror (32), a light converging optical system (28) and a mirror control circuit (72) (all on front of

Art Unit: 3739

patent). However, if Applicant replaces the reflection mirror in claim 1 with a DMD device, or adds the DMD device in addition to the reflection mirror, this reference would not be an anticipatory reference.

Furthermore, the Examiner will not assume or try to predict which direction (from the disclosed subject matter) Applicant will take when correcting the indefiniteness pointed out above. It is Applicant's responsibility for originally filing clear, concise and accurate claims directed to the subject matter that Applicant believes is patentable. However, the Examiner will point out one particular reference that appears to be extremely relevant to the disclosed subject matter. Hosoda et al. (U.S. Pat. 6,464,633) appears to disclose a similar device including a DMD (24, Fig.3) in a light source apparatus.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Sato et al. (U.S. Pat. 4,646,724)--note mirror 32 and mirror control circuit (30).

Jovin et al. (U.S. Pat. 6,399,935), Jovin et al. (U.S. Pat. 6,128,077) and MacAulay (U.S. Pat. 6,388,809)--note DMD device in light source.

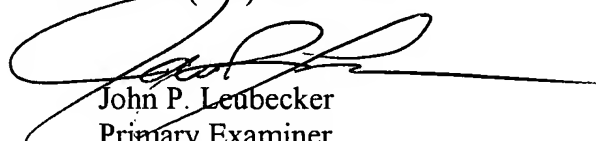
Watanabe (U.S. Pat. 5,812,187), Kikuchi et al. (U.S. Pat. 5,408,263) and Uehara et al. (U.S. Pat. 4,887,153)—note control of light time period according to type of endoscope (number of pixels).

Art Unit: 3739

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John P. Leubecker whose telephone number is (703) 308-0951. The examiner can normally be reached on Monday through Friday, 6:00 AM to 2:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Linda C.M. Dvorak can be reached on (703) 308-0994. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0858.



John P. Leubecker
Primary Examiner
Art Unit 3739

jpl